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☐ 1. Document ID: US 20010030757 A1

Using default format because multiple data bases are involved.

L10: Entry 1 of 24

File: PGPB

Oct 18, 2001

PGPUB-DOCUMENT-NUMBER: 20010030757

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20010030757 A1

TITLE: IMAGE PROCESSING APPARATUS AND METHOD

PUBLICATION-DATE: October 18, 2001

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
SUMIUCHI, KAZUYOSHI	TOKYO		JP	
NAGATANI, MASAHIRO	TOKYO		JP	

US-CL-CURRENT: 358/1.9

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KWIC	Draw Desc	Ima
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☐ 2. Document ID: US 6612676 B1

L10: Entry 2 of 24

File: USPT

Sep 2, 2003

DOCUMENT-IDENTIFIER: US 6612676 B1

TITLE: Apparatus and method for real-time measurement of digital print quality

Application Filing Date (1):

19981117

Brief Summary Text (7):

U.S. Pat. No. 5,038,208; to; Ichikawa et al.; issued: Aug. 6, 1991 teaches an ink jet printer which stores the image forming characteristics of an ink jet printhead and which corrects the image forming signals in accordance with the stored characteristics to maintain uniform print density.

Brief Summary Text (10):

U.S. Pat. No. 5,473,351; to: Heterline et al. teaches a method and apparatus for monitoring print density by measuring printed line width and modifying the energy of the pulses applied to each ink jet nozzle to correct the line width.

Current US Cross Reference Classification (1):

358/406

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KWIC	Draw Desc	Ima
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☐ 3. Document ID: US 6407824 B1

L10: Entry 3 of 24

File: USPT

Jun 18, 2002

DOCUMENT-IDENTIFIER: US 6407824 B1

**** See image for Certificate of Correction ****

TITLE: Image processing and outputting with suspension of processing in a white region

Application Filing Date (1):19970721Brief Summary Text (13):

In addition, to comply with the characteristics of the ink-jet printer 105, density correction processing is performed for each of the colors, C, M, and Y, by looking up a table (step S1105). FIG. 6 shows general characteristics stored in the table. Referring to FIG. 6, the abscissa represents the input level; and the ordinate, the output level. The resultant data are subjected to magnifying processing to be converted from the resolution of the image sensing device 101 into the resolution of the ink-jet printer 105 (step S1106). If, for example, the resolution of the image sensing device 101 is 300 dpi, and the resolution of the ink-jet printer 105 is 720 dpi, the data is magnified 2.4.times..

Detailed Description Text (21):

In order to comply with the characteristics of the ink-jet printer 105, density correction processing is performed for each of the colors, C, M, and Y, by looking up a table (step S206). FIG. 6 shows an example of the characteristics stored in the table. Referring to FIG. 6, the abscissa represents the input level; and the ordinate, the output level. The resultant data are subjected to magnifying processing to be converted from the resolution of the image sensing device 101 into the resolution of the ink-jet printer 105 (step S207). If, for example, the resolution of the image sensing device is 300 dpi, and the resolution of the ink-jet printer is 720 dpi, the data is magnified 2.4.times.. The magnifying processing is performed by using the linear interpolation method.

Current US Original Classification (1):358/1.9Current US Cross Reference Classification (1):358/1.13

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KWIC	Draw Desc	Ima
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☐ 4. Document ID: US 6343147 B1

L10: Entry 4 of 24

File: USPT

Jan 29, 2002

DOCUMENT-IDENTIFIER: US 6343147 B1

**** See image for Certificate of Correction ****

TITLE: Print preview and setting background color in accordance with a gamma value, color temperature and illumination types

Application Filing Date (1):

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19971103Detailed Description Text (71):

Reference numeral 311 denotes a scanner which digitally reads a reflection original (not shown) in units of pixels to obtain R, G, and B signals; 312, a log conversion circuit for converting R, G, and B luminance signals into C, M, and Y density signals; 313, a masking/UCR circuit for adjusting colors in accordance with the characteristics of a printer; 314, an image edit circuit for performing various kinds of image edit processing such as trimming, painting, variable magnification, and the like; and 315, a laser exposure type or ink-jet type printer for outputting a full-color image as a hard copy by controlling the densities of cyan, magenta, yellow, and black toners or inks.

Current US Cross Reference Classification (1):358/519

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KWIC	Draw Desc	Ima
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☐ 5. Document ID: US 6304338 B1

L10: Entry 5 of 24

File: USPT

Oct 16, 2001

DOCUMENT-IDENTIFIER: US 6304338 B1

**** See image for Certificate of Correction ****

TITLE: Image processing apparatus and method

Application Filing Date (1):19970607Brief Summary Text (7):

Conventionally, the above ink-jet printing method performs desirable density control to adjust each ink-discharge amount for multilevel yellow, magenta, cyan and black colors. The density control increases or decreases density of each color.

Current US Original Classification (1):358/1.9Current US Cross Reference Classification (1):358/515Current US Cross Reference Classification (2):358/516Current US Cross Reference Classification (3):358/519

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KWIC	Draw Desc	Ima
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☐ 6. Document ID: US 6289137 B1

L10: Entry 6 of 24

File: USPT

Sep 11, 2001

DOCUMENT-IDENTIFIER: US 6289137 B1

**** See image for Certificate of Correction ****

TITLE: Image processing apparatus and method

h e b b g e e f e ef b e

Application Filing Date (1):
19971215

Brief Summary Text (14):

Reference numeral 2006 denotes a data control unit to control a transfer of image data in accordance with each of the transmission mode, reception mode, and copy mode; 2007 a resolution conversion unit to convert a resolution of the image data to a resolution of a printer when the image data is printed and recorded; 2008 a density correction unit to perform a density correction to the image data which was resolution converted by the resolution conversion unit 2007; and 2009 an ink jet printer to print and record. In the conventional apparatus, a printer of a resolution of (360 dpi.times.360 dpi) is used.

Brief Summary Text (24):

Therefore, the density correction unit 2008 executes a density correction by replacing the black pixels to the white pixels in accordance with the pattern of the image data in order to avoid a phenomenon such that the image density when the image is printed by the ink jet printer 2009 seems to be dense due to an increase in number of pixels by the resolution conversion mentioned above.

Brief Summary Text (28):

The image data is, further, resolution converted from a resolution of (8 dots/mm.times.7.7 lines/mm) to a resolution of (360 dpi.times.360 dpi) by the resolution conversion unit 2007 in a manner similar to the reception mode. In a manner similar to the case of the recording of the reception data mentioned above, in order to avoid that the image becomes too dense as a whole, the density correction unit 2008 inverts the image data from the black pixels to the white pixels and, after that, the data is recorded as an image at a resolution of (360 dpi.times.360 dpi) by the ink jet printer 2009.

Detailed Description Text (18):

Since the number of pixels is increased by the above resolution conversion, the density correction unit 109 replaces the black pixels to the white pixels in accordance with the pattern of the image data and executes the density correction in order to avoid that the image density as a whole image becomes apparently dense when the image is printed by the ink jet printer 110.

Detailed Description Text (129):

The luminance/density conversion unit 1402 converts the image data which was resolution compensated by the edge emphasis unit 1401 from the luminance data to the density data by the conversion table. The conversion table is determined on the basis of the characteristics of the CCD 1109 and the recording characteristics of the image data which is binarized and recorded. Particularly, in case of the recording apparatus such as LBP, ink jet printer, or the like, since the recording characteristics of the binary image differ depending on the resolution, it is necessary to adjust so as to keep the recording density constant by changing the values of a luminance/density conversion table in accordance with the output resolution as mentioned above. Such a conversion table has previously been stored in an ROM built in the luminance/density conversion unit 1402. Or, for example, the table read out from the ROM 1102 by the CPU 1101 is set in an RAM built in the luminance/density conversion unit 1402.

Current US Cross Reference Classification (1):
358/451

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KWIC	Draw Desc	Ima
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☐ 7. Document ID: US 6172769 B1

L10: Entry 7 of 24

File: USPT

Jan 9, 2001

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DOCUMENT-IDENTIFIER: US 6172769 B1
 TITLE: Printer dependent descreening method

Application Filing Date (1):
19980806

Detailed Description Text (15):

Once a descreened image has been obtained, it may be used to print a halftoned picture with another printer P'. Let M' be the corresponding printing decision matrix, N' be the halftoned picture, and N'.sub.1 the corresponding matrix. M can be produced for an ink jet printer with a dispersed mask which would not get good results with P', or the picture one desires has a cell size different that the one corresponding to M. In such cases, one can use the descreened image as the original grayscale image to be processed by P', and halftone it with any algorithm one wishes: if the descreened image is obtained as described here, using N.sub.1 for the averages, the resulting N' will be closer to N than if one averages using M and uses standard calibration because of the intricate way darkness depends on dot patterns.

Current US Original Classification (1):
358/1.9

Current US Cross Reference Classification (1):
358/3.21

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sections	Attachments	Claims	KMIC	Draw Desc	Ima
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☒ 8. Document ID: US 6033137 A

L10: Entry 8 of 24

File: USPT

Mar 7, 2000

DOCUMENT-IDENTIFIER: US 6033137 A

**** See image for Certificate of Correction ****

TITLE: Ink jet printing apparatus performing printing with correction of image data at boundary portion of image

Application Filing Date (1):
19960912

Brief Summary Text (26):

Another object of the present invention is to provide an ink jet printing apparatus which can set a correction data for a density data depending upon variation of environmental condition of the apparatus and/or a printing medium, in a construction where correction of the density data for determining ink ejection number and ejection amount of ink ejection openings at both ends of an array of a plurality of ink ejection openings in an ink jet printing head.

Current US Cross Reference Classification (2):
358/1.18

CLAIMS:

4. An ink jet printing apparatus as claimed in claim 1, wherein said image data is a plurality of kinds of density data, said correction means performs correction by performing matrix operation with respect to said plurality of kinds of density data, and said correction data is a coefficient for said matrix operation.

5. An ink jet printing apparatus as claimed in claim 4, wherein said coefficient for said matrix operation is obtained as a table output depending upon said plurality of kinds of density data to be corrected.

14. A method of correcting a density fluctuation in an image printed in an ink jet printing apparatus using a printing head having a plurality of ink ejection elements arranged in a predetermined direction and performing printing on a printing medium on a basis of image data corresponding to said plurality of ink ejection elements, said method comprising the steps of:

printing a test pattern, based on the image data corresponding to the test pattern, on the printing medium to be used for printing by using the ink ejection elements of the printing head;

reading a density of the printed test pattern so as to obtain density corresponding to each of the plurality of ink ejection elements used for printing said test pattern;

setting correction data for correcting the image data corresponding to the ink ejection elements used for printing portions including at least both end portions of a printing region to be printed, on a basis of differences between the density corresponding to a first group of ink ejection elements including at least ink ejection elements at both end portions of the printing region and an average density value corresponding to a second group of ink ejection elements that excludes the first group of ink ejection elements;

correcting the image data corresponding to said ink ejection elements at both end portions on a basis of the set correction data; and

controlling correction of the image data performed in said correcting step, the image data corresponding to the test pattern, before said setting step sets the correction data corresponding to the ink ejection elements.

25. A method of correcting a density fluctuation in an image printed in an ink jet printing apparatus using a printing head having a plurality of ink ejection elements arranged in a predetermined direction and performing printing on a printing medium on a basis of image data corresponding to said plurality of ink ejection elements, said method comprising the steps of:

correcting, in a first correction step, the image data corresponding to the ink ejection elements of end portions of the plurality of ink ejection elements so that density indicated by said image data is decreased;

correcting, in a second correction step, the image data corresponding to the ink ejection elements of the end portions on a basis of the density indicated by the image data corresponding to the plurality of ink ejection elements;

driving, in a printing step, the printing head on a basis of the image data corrected in both said first correction step and said second correction step to perform printing; and

controlling correction respectively performed in said first correction step and said second correction step.

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KWIC	Draw Desc	Ima
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☐ 9. Document ID: US 5790165 A

L10: Entry 9 of 24

File: USPT

Aug 4, 1998

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DOCUMENT-IDENTIFIER: US 5790165 A

**** See image for Certificate of Correction ****

TITLE: Image processing apparatus and providing controlling addition of predetermined data in a border portion

Application Filing Date (1):19961126Brief Summary Text (17):

Furthermore, in order to solve the above problems, the method such that particular information such as a type of copying machine, serial number, and manufacture date is coded and added to the image output in order to trace and identify the used apparatus from the output image. More particularly, in a binary recording method using the ink-jet type, it is suggested that when recording is performed by similar tone reproduction, a print dot is shifted in accordance with a code added at a predetermined density and a print-dot space is adjusted.

Current US Cross Reference Classification (1):358/296

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Alignments	Claims	KMC	Draw Desc	Ima
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☐ 10. Document ID: US 5598272 A

L10: Entry 10 of 24

File: USPT

Jan 28, 1997

DOCUMENT-IDENTIFIER: US 5598272 A

TITLE: Visual calibrator for color halftone imaging

Application Filing Date (1):19940407Detailed Description Text (5):

The most preferred embodiment and use of the visual calibrator of the present invention is for use with at least three color electronically driven imaging systems (systems in which the intensity (energy level) of the electronic signal from a data source is proportional to the image density to be generated by the imaging system, e.g., thermal dye transfer, thermal mass transfer, ink jet, etc.) and to use the color patches to control three color (absent black, e.g., cyan magenta and yellow only) gray scale balance. When there are multiple prepared three color visual calibration scales present on a single calibrator sheet (e.g., as in FIG. 3), the alphanumeric directions can provide adjustments for the electronically driven imager which can be varied across various ranges of image and color density.

Current US Original Classification (1):358/1.9Current US Cross Reference Classification (2):358/504Current US Cross Reference Classification (3):358/518Current US Cross Reference Classification (4):358/521

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KMIC	Draw Desc	Ima
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☐ 11. Document ID: US 5539526 A

L10: Entry 11 of 24

File: USPT

Jul 23, 1996

DOCUMENT-IDENTIFIER: US 5539526 A

**** See image for Certificate of Correction ****

TITLE: Image recording apparatus which corrects an image signal according to characteristic data of a recording element

Application Filing Date (1):
19950307Detailed Description Text (34):

In a step S9, the density correction ROM 29a effects density correction by selecting a correction line with an appropriate inclination, according to a signal from the density correction data RAM 27a. In the present embodiment, the image recorder unit 24b is a multi-nozzle ink jet printer with 256 nozzles, so that the correction data are to store the optimum inclination according to the density provided by said recording head. The data for the head is 6 bits, in order to select one of 64 correction lines.

Current US Original Classification (1):
358/3.05Current US Cross Reference Classification (2):
358/1.9

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KMIC	Draw Desc	Ima
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☐ 12. Document ID: US 5513012 A

L10: Entry 12 of 24

File: USPT

Apr 30, 1996

DOCUMENT-IDENTIFIER: US 5513012 A

**** See image for Certificate of Correction ****

TITLE: Image forming apparatus having density correction for image formation

Application Filing Date (1):
19910724Detailed Description Text (76):

In the case of the ink jet printer, the density can be corrected by modulating the image signal itself.

Current US Original Classification (1):
358/401Current US Cross Reference Classification (2):
358/1.11Current US Cross Reference Classification (3):
358/1.9

Current US Cross Reference Classification (4):
358/300

Current US Cross Reference Classification (5):
358/438

Current US Cross Reference Classification (6):
358/462

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KWIC	Draw Desc	Ima
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☐ 13. Document ID: US 5504588 A

L10: Entry 13 of 24

File: USPT

Apr 2, 1996

DOCUMENT-IDENTIFIER: US 5504588 A

TITLE: Image forming apparatus with optical reflective density of image adjusted according to image resolution discriminated from signal other than image signal

Application Filing Date (1):
19950309

Detailed Description Text (78):

In the case of the ink jet printer, the density can be corrected by modulating the image signal itself.

Current US Original Classification (1):
358/401

Current US Cross Reference Classification (3):
358/1.12

Current US Cross Reference Classification (4):
358/1.9

Current US Cross Reference Classification (5):
358/300

Current US Cross Reference Classification (6):
358/438

Current US Cross Reference Classification (7):
358/462

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KWIC	Draw Desc	Ima
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☐ 14. Document ID: US 5416596 A

L10: Entry 14 of 24

File: USPT

May 16, 1995

DOCUMENT-IDENTIFIER: US 5416596 A

**** See image for Certificate of Correction ****

TITLE: An apparatus for transmitting, receiving and recording an image

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Application Filing Date (1):19911024Detailed Description Text (34):

In a step S9, the density correction ROM 29a effects density correction by selecting a correction line with an appropriate inclination, according to a signal from the density correction data RAM 27a. In the present embodiment, the image recorder unit 24b is a multi-nozzle ink jet printer with 256 nozzles, so that the correction data are to store the optimum inclination according to the density provided by said recording head. The data for the head is 6 bits, in order to select one of 64 correction lines.

Current US Original Classification (1):358/3.1Current US Cross Reference Classification (2):358/3.21Current US Cross Reference Classification (3):358/436Current US Cross Reference Classification (4):358/439

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KMIC	Draw Desc	Ima
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☐ 15. Document ID: US 5387987 A

L10: Entry 15 of 24

File: USPT

Feb 7, 1995

DOCUMENT-IDENTIFIER: US 5387987 A

TITLE: Method and apparatus for reproducing half-tone images

Application Filing Date (1):19920925Brief Summary Text (7):

For this reason, what has been called for is a function in which the user can adjust the color tone as desired by a simple operation. Conventional color tone adjusting methods include a method of changing the masking constant when the RGB color representing system is converted to the YMC color representing system, and a method of adjusting the density of each color by changing the developing bias voltage in the case of electrophotography, or by changing energy to be applied in the case of ink jet recording systems or thermal recording systems.

Current US Original Classification (1):358/3.03Current US Cross Reference Classification (2):358/465Current US Cross Reference Classification (3):358/466

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KMIC	Draw Desc	Ima
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☐ 16. Document ID: US 5376957 A

L10: Entry 16 of 24

File: USPT

Dec 27, 1994

DOCUMENT-IDENTIFIER: US 5376957 A

TITLE: Ink jet printer

Application Filing Date (1):19940107Detailed Description Text (16):

The low pressure compressed air source communicates ink jet 32 through valve 34. Valve 34 opens and closes in response to printing information received from the computer. During a beginning pixel print cycle, valve 34 is opened allowing the low pressure air to flow through passage 35 and across ink jet 32. In contrast to passage 33, passage 35 has a relatively large diameter which permits a large volume of low pressure air to flow past ink jet 32. The volume of low pressure air flowing past 32 is sufficient to draw the meniscus of ink from ink jet 32 causing the ink to be applied to substrate 13. When the desired ink density has been reached, as determined from the print information, valve 34 is closed stopping the flow of the low pressure air, thereby stopping the flow of ink from ink jet 32. Thus, the length of time that valve 34 remains open varies according to the desired color density, only allowing low pressure air to flow across ink jet 32 for the time required to develop the correct color density. For the purposes of disclosure, only ink sprayhead 23A was described, however, it is to be understood that each of ink sprayheads 23B-D and 25A-D also communicates with the two compressed air sources to apply the ink to substrate 13.

Current US Cross Reference Classification (3):358/296

Full	Title	Citation	Front	Review	Classification	Date	Reference	Abstract	Abstract	Claims	KWC	Draw Desc	Ima
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☐ 17. Document ID: US 5294946 A

L10: Entry 17 of 24

File: USPT

Mar 15, 1994

DOCUMENT-IDENTIFIER: US 5294946 A

TITLE: Ink jet printer

Application Filing Date (1):19920608Detailed Description Text (16):

The low pressure compressed air source communicates ink jet 32 through valve 34. Valve 34 opens and closes in response to printing information received from the computer. During a beginning pixel print cycle, valve 34 is opened allowing the low pressure air to flow through passage 35 and across ink jet 32. In contrast to passage 33, passage 35 has a relatively large diameter which permits a large volume of low pressure air to flow past ink jet 32. The volume of low pressure air flowing past 32 is sufficient to draw the meniscus of ink from ink jet 32 causing the ink to be applied to substrate 13. When the desired ink density has been reached, as determined from the print information, valve 34 is closed stopping the flow of the low pressure air, thereby stopping the flow of ink from ink jet 32. Thus, the length of time that valve 34 remains open varies according to the desired color density, only allowing low pressure air to flow across ink jet 32 for

the time required to develop the correct color density. For the purposes of disclosure, only ink sprayhead 23A was described, however, it is to be understood that each of ink sprayheads 23B-D and 25A-D also communicates with the two compressed air sources to apply the ink to substrate 13.

Current US Cross Reference Classification (5):
358/296

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KMIC	Draw Desc	Ima
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☐ 18. Document ID: US 5276459 A

L10: Entry 18 of 24

File: USPT

Jan 4, 1994

DOCUMENT-IDENTIFIER: US 5276459 A

**** See image for Certificate of Correction ****

TITLE: Recording apparatus for performing uniform density image recording utilizing plural types of recording heads

Application Filing Date (1):
19910426

Brief Summary Text (20):

When ink-jet recording of a test pattern for correcting an uneven image density is to be performed, the test pattern reading system consisting of the lamp source 610 and the optical sensor 611 is operated. More specifically, the lamp source 610 is turned on, and the optical sensor 611 receives light reflected by the recorded test pattern and outputs an electrical signal proportional to a light reception quantity. Each of the lamp source 610 and the optical sensor 611 has a width equal to or larger than that of the ink-jet head 1. Alternatively, the lamp source 610 and the optical sensor 611 may be arranged such that scanning is performed in a direction perpendicular to the drawing surface (FIG. 2) along a guide rail (not shown) to read the recording characteristics of a plurality of recording elements (a plurality of nozzles in this case).

Detailed Description Text (20):

A monochromatic ink-jet recording apparatus according to the fourth embodiment of the present invention will be described below. An ink-jet recording apparatus for improving image texture is proposed as a binary recording type ink-jet recording apparatus using two ink-jet heads, i.e., a light black ink head and a dark black ink head. In such an ink-jet recording apparatus, when an uneven image density is to be corrected, an optical density of a test pattern recorded at a 50% duty varies depending on the respective recording heads. Analog output values read by the test pattern reading system are different between the light black ink head and the dark black ink head.

Detailed Description Text (231):

Uneven image density correction of each embodiment described above has been described with reference to an ink-jet recording head. However, correction can be similarly performed for a thermal recording head using thermal paper. This will be described as the twelfth embodiment with reference to FIGS. 58A to 58C.

Current US Cross Reference Classification (3):
358/296

Current US Cross Reference Classification (4):
358/503

Current US Cross Reference Classification (5):
358/518

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KMIC	Draw Desc	Ima
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☐ 19. Document ID: US 5189521 A

L10: Entry 19 of 24

File: USPT

Feb 23, 1993

DOCUMENT-IDENTIFIER: US 5189521 A

**** See image for Certificate of Correction ****

TITLE: Image forming apparatus and method for correction image density non-uniformity by reading a test pattern recorded by the apparatus

Application Filing Date (1):19910606Brief Summary Text (16):

Upon correction, when the test pattern is recorded in a state wherein there is a recording element which cannot perform a normal recording operation (e.g., a discharging orifice suffering from a discharging error in an ink-jet recording head), the density nonuniformity cannot be correctly recognized due to the presence of such a recording element.

Current US Original Classification (1):358/296Current US Cross Reference Classification (4):358/518

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KMIC	Draw Desc	Ima
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☐ 20. Document ID: US 5126754 A

L10: Entry 20 of 24

File: USPT

Jun 30, 1992

DOCUMENT-IDENTIFIER: US 5126754 A

TITLE: Ink jet printing density controller with programmable angle of travel look-up tables for a plotter

Application Filing Date (1):19910320Detailed Description Text (9):

The microprocessor transmits the angle of travel of the cartridge (an 8-bit word) as an address word to the address port of the read-only memory 40. For a given print density (number of dots per meter) the read-only memory 40 stores a look-up table relating each possible angle of travel to the correct factor by which the pulse rate of the output of the major axis shaft encoder (16 or 22) should be scaled to provide the correct ink drop rate at the input to the ink jet cartridge driver circuit 36. In response to the address word, the read-only memory sends the appropriate scale factor N to the microprocessor 38, which transmits N to the divisor input of the programmable divider 30.

Current US Cross Reference Classification (7):358/1.3

h e b b g e e e f e ef b e

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KMIC	Draw Desc	Ima
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☐ 21. Document ID: US 4631578 A

L10: Entry 21 of 24

File: USPT

Dec 23, 1986

DOCUMENT-IDENTIFIER: US 4631578 A

TITLE: Method of and apparatus for forming a color picture using a plurality of color correction processings

Application Filing Date (1):19840227Detailed Description Text (5):

The respective digital chrominance signals of R, G and B are firstly converted into the density data of yellow (Y), magenta (M) and cyan (C) by the YMC conversion circuit 41. Then, they are .gamma.-converted by the .gamma. conversion circuit 42 to obtain Y', M' and C' and the colorless component is further detected by the undercolor elimination circuit 43. The density of black (BL) is determined in accordance with this colorless component and at the same time the component of BL is subtracted from Y', M' and C', thereby obtaining Y", M", C", and BL". These Y", M", C", and BL" are color-corrected by the masking circuit 44 and are transmitted to the driver circuits of the high-density ink jet head and low-density head regarding to each color.

Current US Original Classification (1):358/518

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KMIC	Draw Desc	Ima
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☐ 22. Document ID: US 4458265 A

L10: Entry 22 of 24

File: USPT

Jul 3, 1984

DOCUMENT-IDENTIFIER: US 4458265 A

TITLE: Color image duplicating system

Application Filing Date (1):19811217Detailed Description Text (4):

However, in practice, in the case of the color recorder wherein an ink jet recording head of an on-demand type is utilized, a series of experiments conducted have shown that, if x_1 , x_2 , x_3 , $x_{1.sup.2}$, $x_{2.sup.2}$, $x_{3.sup.3}$, $x_{1.x2}$, $x_{2.x3}$, or $x_{3.x1}$ is used for f_j when the input x_i represents the density relative to the three colors of red, green and blue, a satisfactory correction result can be obtained.

Current US Original Classification (1):358/523Current US Cross Reference Classification (3):358/502

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KWIC	Draw Desc	Ima
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☐ 23. Document ID: US 3977007 A

L10: Entry 23 of 24

File: USPT

Aug 24, 1976

DOCUMENT-IDENTIFIER: US 3977007 A

TITLE: Gray tone generation

Application Filing Date (1):19750602Brief Summary Text (12):

In accordance with the present invention, shades of gray are reproduced in an ink jet recorder by depositing at a predetermined dot location in a matrix cell on a record a number of drops of ink substantially representative of the shade to be recorded at the matrix cell location and based upon the location of the predetermined dot within the matrix cell, selectively adjusting by one the number of drops of ink deposited at the predetermined dot location so as to refine the density of the image recorded on the record.

Current US Cross Reference Classification (4):358/3.01

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KWIC	Draw Desc	Ima
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☐ 24. Document ID: JP 05318767 A

L10: Entry 24 of 24

File: JPAB

Dec 3, 1993

DOCUMENT-IDENTIFIER: JP 05318767 A

TITLE: INK JET PRINTER AND METHOD FOR FORMING HEAD SHADING CORRECTION TABLE

Abstract Text (1):

PURPOSE: To provide an ink jet printer generating no density irregularity even when input data is changed and a head shading correction table forming method.

Application Date (1):19920522Current US Cross Reference Classification (1):358/1.6

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KWIC	Draw Desc	Ima
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Documents

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